

What is claimed is:

1. A fungicide composition comprising:  
a fatty acid, or a salt thereof, having between 5 and 22 carbon atoms  
5 included in a fungicidally effective amount;  
an organic carboxylic acid, or a salt thereof, different from the fatty acid,  
said organic carboxylic acid selected from the group consisting of: mevalonic acid,  
glycolic acid, ketoglutaric acid, glutaric acid, glyceric acid, malonic acid, benzoic  
acid, trichloroacetic acid, pyruvic acid, cinnamic acid, formic acid, fumaric acid,  
10 isocitric acid, oxalacetic acid, acrylic acid, isobutyric acid, itaconic acid, humic  
acid, tetrahydrofurfuryl salicylic acid, diethylamine, fulvic acids, pentonic acid,  
gluconic acid, galactonic acid, hexonic acid, saccharic acid, ascorbic acid, bionic  
acids alanine, glycine, isoleucine, leucine, methionine, phenylalanine, proline,  
tryptophan, valine, asparagine, cysteine, glutamine, serine, threonine, tyrosine,  
15 aspartic acid, glutamic acid, arginine, histidine and lysine and mixtures of these  
acids; and  
a carrier.
2. The composition of claim 1 comprising the fatty acid in an amount  
20 between about 1 % v/v and about 99 %v/v, based upon the total volume of the  
composition.
3. The composition of claim 1 wherein the fatty acid is selected from  
the group consisting of: pentanoic, hexanoic, heptanoic acid, octanoic acid,  
25 pelargonic acid, decanoic acid, undecanoic acid, lauric acid, myristic acid, palmitic  
acid, stearic acid, oleic acid, linolenic acid, linoleic acid, erucic acid, palmitoleic  
acid, pentadecanoic acid, margaric acid, arachidic acid, arachidonic acid, behenic  
acid, mixtures thereof.
- 30 4. The composition of claim 1 wherein the alkyl group of the organic  
acid is a straight chain, branched chain or cyclic alkyl group.

5. The composition of claim 1 comprising caprylic acid or pelargonic acid.

5 6. The composition of claim 5 wherein the organic acid is selected from the group consisting of: glycolic acid, , tetrahydrofurfuryl salicylic acid, diethylamine salicylic acid, and mixtures of these acids.

7. The composition of claim 5 wherein the organic acid is selected  
10 from the group consisting of: pentonic acid, gluconic acid, galactonic acid, hexonic acid, saccharic acid, ascorbic acid, bionic acid, and mixtures thereof.

8 The composition of claim 5 wherein the organic acid is selected  
from the group consisting of: fumaric acid, isocitric acid, ketoglutaric acid,  
15 oxalacetic acid and mixtures thereof.

9. The composition of claim 5 wherein the organic acid is selected  
from the group consisting of: alanine, glycine, isoleucine, leucine, methionine,  
phenylalanine, proline, tryptophan, valine, asparagine, cysteine, glutamine, serine,  
20 threonine, tyrosine, aspartic acid, glutamic acid, arginine, histidine and lysine or  
mixtures thereof.

10. The composition of claim 1 comprising an organic acid in an  
amount between about 0.01 % v/v and about 80 %v/v based upon the total volume  
25 of the composition.

11. The composition of claim 1 comprising the fatty acid and organic  
acid in a weight ratio of between 1:1000 and about 1000:1.

30 12. The composition of claim 1 comprising the fatty acid and organic  
acid in a weight ratio of between 1:5 and about 5:1.

13. The composition of claim 1 wherein the organic acid is a dicarboxylic acid.

14. The herbicide of composition of claim 1 wherein the organic acid is  
5 an aromatic acid.

15. The composition of claim 1 wherein the organic acid is a monocarboxylic acid.

10 16. The composition of claim 1 wherein the organic acid includes an hydroxyl substituent.

17. The composition of claim 1 comprising one or more of an adjuvant, an emulsifier and/or a diluent.

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18. The composition of claim 1 wherein the carrier is selected from the group consisting of: water, kerosene, xylene, mineral oil, vegetable or seed oil, alcohol and a mixture thereof.

20 19. The composition of claim 1 provided as a concentrate suitable for dilution, said composition comprising one of more emulsifiers selected to suspend the fatty acid, or the organic acid, or both in water upon dilution; i.e., as a ready-to-use formulation.

25 20. The composition of claim 1 provided as a ready-to-use formulation suitable for application to harvested fruit, vegetables, berries, seeds, leaves, flowers and nuts.

30 21. The composition of claim 20 comprising the fatty acid in an amount between about 0.001 % v/v and about 3.0 % v/v, based upon the total volume of the composition.

22. The composition of claim 21 comprising the fatty acid in an amount between about 0.01 %v/v and about 1.0 %v/v, based upon the total volume of the composition.

5 23. The composition of claim 20 comprising the organic acid in an amount between about 0.001 %v/v and about 4.0% v/v, based upon the total volume of the composition.

10 24. The composition of claim 20 comprising the organic acid in an amount between about 0.1 %v/v and about 1.0% v/v, based upon the total volume of the composition.

15 25. The composition of claim 20 suitable for application to fruits, vegetables, berries, seeds or nuts after harvesting.

20 26. A method of controlling fungus, said method comprising contacting one or more of: fruit, vegetables, berries, seeds, and nuts with a effective amount of a ready-to-use composition prepared by diluting the composition of claim 1 with water.

25 27. A method of treating a crop product to inhibit fungal infection, said method comprising applying to the crop product a fungicidal composition comprising a fungicidally active amount of a fatty acid, or salt thereof, having between 5 and 22 carbon atoms, and an organic acid, or salt thereof, different from the fatty acid.

28. The method of claim 27 wherein the crop product is selected from the group consisting of: fruit, vegetable, berry, seed, nut, or flower.

30 29. The method of claim 27 comprising applying the fungicidal composition to the crop product after harvesting.

30. The method of claim 27 comprising applying the fungicidal composition to one or more of: strawberries, raspberries, blueberries, melons, stone fruit, nut crops, potatoes, vegetables, turf grasses, seed crops, corn, rice,  
5 wheat, soybeans, dry beans, peanuts, cotton, sorghum, and curcubits.

31. The method of claim 27 comprising identifying crop product susceptible to fungal infection and applying the fungicidal composition to the crop product in one or more treatments

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32. The method of claim 27 wherein the crop product is dipped in the fungicidal composition.